

REMARKS

The present Amendment is in response to the Office Action mailed May 19, 2005.

Claims 1, 8 and 12 have been amended. The Amendment of claims 1, 8, and 12 are fully supported by the originally filed specification and adds no new matter (e.g. – see specification at paragraphs [0026] and [0028]). Therefore, claims 1-18 are currently pending.

Initially, in the Office Action, the Examiner has rejected claims 1-18 under the judicially created doctrine of non-statutory double-patenting. Applicant is including a Terminal Disclaimer listing the co-pending applications set forth on pages 1 and 2 of the Official Action, namely U.S. Patent Application Nos. 10/382,702 filed March 6, 2003; 10/776,471 filed February 11, 2004; 10/776,650 filed February 11, 2004; 10/776,651 filed February 11, 2004; and 10/776,434 filed February 11, 2004. Applicant believes the attached Terminal Disclaimer overcomes the double-patenting rejection raised by the Examiner.

Further in the Office Action, the Examiner has rejected claims 8-17 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,039,763 to Shelokov ("Shelokov"). As stated in Applicant's Amendment of December 20, 2004, Shelokov discloses an artificial disk including a first plate 1 and second plate 10 (referring to FIGS. 1A-1C). The first plate 1 has a substantially flat superior surface 2 and an opposing articulating inferior surface 3 having two laterally juxtaposed convex portions 4, 5. Referring to FIGS. 2A-2C, the second plate 10 includes a substantially flat inferior surface 11 and an articulating superior surface 12 having two laterally juxtaposed concave portions 13, 14. Referring to FIGS. 3A-3B, as the upper and lower plates 21, 22 articulate along their articulating surfaces 25, 26, the upper plate 21 will move in the direction indicated by the arrow B from the home position depicted in FIG. 3A to a second position depicted in FIG. 3B. In the home position, the plates 21, 22, share a common center of rotation (23a, 23b). However, when the upper plate 21 is articulated to the second position as depicted in FIG. 3B, the instant centers of rotation 23a, 23b are no longer coincident. Therefore, when a patient using the Shelokov device bends in a forward or backward manner, the instant centers of rotation 23a, 23b will be displaced away from each other in an anteroposterior fashion, i.e., there will be an anteroposterior translation of the instant center of rotation 23b with respect to the instant center of rotation 23a.

Additionally, FIGS. 4A and 4B of Shelokov depict partial cross-sectional rear, or posterior, elevation views of an artificial spinal disc 30 having a first superior plate 31 and a

second inferior plate 32. The first superior plate 31 has a bicondylar articulating surface that articulates with a bimodal concave articulating surface 34 of the second plate 32. The plates 31, 32 are depicted in a home or neutral position. However, when the first plate 31 is translated laterally along the arrow T with respect to the second plate 32, the first plate 31 will tilt slightly with respect to the second plate 32 and the instant centers of rotation 35a, 35b will be displaced from one another. Thus, the Shelokov artificial spinal disc provides first and second articulating surfaces that are adapted to provide a changing center of rotation when the articulating surfaces are translated or articulated with respect to one another in a lateral-to-lateral fashion.

It is respectfully submitted that independent claim 8 is unanticipated by Shelokov because the cited reference neither discloses nor suggests an apparatus including a first member "having a first articulation surface **that is a single saddle shaped surface** including a single concave arc extending between leading and trailing ends of the first articulation surface and a single convex arc extending between first and second lateral ends of the first articulation surface." Claim 8 is also unanticipated by Shelokov because Shelokov does not disclose nor suggest an apparatus including a second member "having a second articulation surface **that is a single saddle shaped surface** including a singled convex arc extending between leading and trailing ends of the second articulation surface and a single concave arc extending between first and second lateral ends of the second articulation surface." Claims 9-11 are unanticipated, *inter alia*, by virtue of their dependence from claim 8, which is unanticipated for the reasons set forth above.

It is respectfully submitted that independent claim 12 is also unanticipated by Shelokov because the cited reference neither discloses nor suggests an apparatus including a first member "having a first articulation surface **that is a single saddle shaped surface** including a concave arc extending between leading and trailing ends of the first articulation surface and a convex arc extending between first and second lateral ends of the first articulation surface." Independent claim 12 is also unanticipated by Shelokov because the cited reference neither discloses nor suggests an apparatus including a second member "having a second articulation surface **that is a single saddle shaped surface** including a convex arc extending between leading and trailing ends of the second articulation surface and a concave arc extending between first and second lateral ends of the second articulation surface." Claims 13-17 are unanticipated, *inter alia*, by virtue of their dependence from claim 12, which is unanticipated for the reasons set forth above.

Further in the Office Action, the Examiner has also rejected claims 1-17 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,706,068 to Ferree et al. ("Ferree"). Claim 1 is not anticipated by Ferree because the cited reference neither discloses nor suggests an apparatus for replacing at least a portion of an intervertebral disc in a spinal column which includes a first member "having a first articulation surface that is a single toroidal saddle shaped surface including **a first concave arc extending between leading and trailing ends of the first articulation surface** and a first convex arc extending between first and second lateral ends of the first articulation surface." Independent claim 1 is also not anticipated by Ferree because the cited reference neither discloses nor suggests an apparatus for replacing at least a portion of an intervertebral disc in a spinal column which includes a second member "having a second articulation surface that is a single toroidal saddle shaped surface including **a second convex arc extending between leading and trailing ends of the second articulation surface** and a second concave arc extending between first and second lateral ends of the first articulation surface." Rather, Ferree, as shown in its Figures, teaches an apparatus having first and second members which include both concave and convex arcs extending between leading and trailing ends of their respective articulation surfaces. This is quite different from that set forth in independent claim 1 of the present application. Claims 2-7 are unanticipated, *inter alia*, by virtue of their dependence from independent claim 1, which is unanticipated for the reasons set forth above.

Independent claims 8 and 12, as well as their respective dependent claims, are also not anticipated by Ferree for similar reasons set forth in the above arguments relating to the rejection of independent claim 1. Namely, Ferree does not teach nor suggest an apparatus including a first member having a first articulation surface with **a concave arc extending between leading and trailing ends of the first articulation surface** and second member having a second articulation surface with **a convex arc extending between leading and trailing ends of the second articulation surface**. Rather, as noted above, Ferree teaches an apparatus having first and second members which include both concave and convex arcs extending between leading and trailing ends of their respective articulation surfaces.

Finally, it is noted that there is no reason to separately address the obviousness rejection of dependent claim 18, as that claim is necessarily allowable in light of its dependence upon what is believed to be an allowable independent claim 12.

Applicants have amended the claims in the present application in order to obtain prompt allowance of the case. Applicants respectfully note that they intend to pursue claims in

related or continuing applications that are of a broader scope than the claims currently pending in this application.

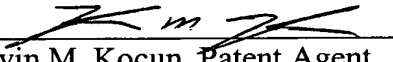
As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he/she telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: August 19, 2005

Respectfully submitted,

By 
Kevin M. Kocun, Patent Agent
Registration No.: 54,230
LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK, LLP
600 South Avenue West
Westfield, New Jersey 07090
(908) 654-5000
Agent for Applicant